UN/SCETDG/50/INF.35
UN/SCEGHS/32/INF.20

Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

22 November 2016

Sub-Committee of Experts on the Transport of Dangerous Goods

Fiftieth session

Geneva, 28 – 6 December 2016

Item 7 (c) of the provisional agenda

Issues relating to the Globally Harmonized System of Classification and Labelling of Chemicals: classification criteria for flammable gases

Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals

Thirty-second session

Geneva, 7– 9 (morning) December 2016

Item 2 (b) of the provisional agenda

Classification criteria and related hazard communication: work of the TDG Sub-Committee on matters of interest to the GHS Sub-Committee

Proposed correction to document ST/SG/AC.10/C.3/2016/58-ST/SG/AC.10/C.4/2016/12

Transmitted by the European Industrial Gases Association (EIGA)

1. This document contains a proposal for a correction that affects only the amendments proposed for chapter 2.2 of the GHS.

2. Section 2.2.5 of the current GHS (Rev.6) gives an example of calculation of the flammability of a mixture according to calculation method described in ISO 10156:2010. However, the parameters in this example were still those coming from ISO 10156:1996. Therefore, EIGA supplied to the experts of Belgium and Japan the corrections to that example when using the parameters from ISO10156:2010.

3. Unfortunately, the nitrogen equivalent 85.2% was left unchanged in line 3:

"Adjust the sum of the contents to 100%:

$$\frac{100}{81.35} \times [2\%(H_2) + 6\%(CH_4) + 73.35\%(N_2)] = 2.46\%(H_2) + 7.37\%(CH_4) + 85.2\%(N_2)$$"

The correct value of the equivalent nitrogen with the parameters of IS01056:2010 is 90,17% and the summation should read:

$$\frac{100}{81.35} \times [2\%(H_2) + 6\%(CH_4) + 73.35\%(N_2)] = 2.46\%(H_2) + 7.37\%(CH_4) + \mathbf{90,17}\%(N_2)$$

This correction has no influence on the remaining of the example that remains valid.

4. ISO standards are routinely reviewed or confirmed every five years. The parameters used for the calculation methods in ISO 10156 are determined on the basis of laboratory test with a safety factor to take into account the variability of the test results. One can anticipate that at future reviews of the standard, new parameters will be adopted in ISO 10156 based on more recent laboratory tests and would require new adjustments of the example. Furthermore the standard is being revised and in its next edition ISO 10156:2017 will include an additional calculation method to determine the lower flammability limit (LFL) of flammable mixtures. This new calculation method will enable to differentiate flammable gas mixtures between categories 1A and 1B. It would then be logical to add a second example to illustrate this new calculation method.

5. EIGA questions the benefit to have calculation example(s) in chapter 2.2. The examples do not prevent formulators to have to rely on the standard itself to make their classifications. EIGA proposes to delete section 2.2.5.

6. If the deletion of the section 2.2.5 is accepted by the sub-committee, EIGA proposes that consequentially section 2.4.4.2 with the calculation example for "Oxidising gases" be deleted, for the same reasons.

Proposals

7. **Proposal 1a**: Delete 2.2.5 for the reasons explained above.

8. **Proposal 1b**: Delete 2.4.4.2 as a consequence to1a and for the same reasons.

9. **Proposal 2:** If proposals 1a and 1b are not accepted, correct 2.2.5 line 3 as outlined above.